# Knowledge, Beliefs and Barriers Associated with Prostate Cancer Prevention and Screening Behaviors among African-American Men

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African-American men have the highest prostate cancer rates worldwide, and innovative efforts are needed to increase cancer prevention and screening behaviors among this population. Formative research was conducted to assess attitudes and behaviors linked to prostate cancer prevention activities that could be used to develop a culturally relevant intervention for an African-American church-based population. Four gender-specific focus groups were conducted with 29 men and women at two African-American churches in central North Carolina. Three primary themes emerged from the focus group discussions: culturally and gender-influenced beliefs and barriers about cancer prevention and screening; barriers related to the healthcare system; and religious influences, including the importance of spiritual beliefs and church support.

These discussions revealed the importance of the black family, the positive influence of spouses/partners on promoting cancer screening and healthy behaviors, the roles of faith and church leadership, and beliefs about God's will for good health. These findings also revealed that there are still major barriers and challenges to cancer prevention among African Americans, including continued mistrust of the medical community and negative attitudes toward specific screening tests. Findings provide important insights to consider in implementing successful prostate cancer prevention interventions

**Key words:** prostate cancer ■ attitudes and beliefs ■ church-based interventions ■ African Americans ■ minorities

designed for church-based audiences.

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### INTRODUCTION

frican-American men have the highest incidence of prostate cancer in the world. In North Carolina, prostate cancer disparities are particularly disturbing. The 1997–2001 age-adjusted prostate cancer death rates in the state were 77.9 deaths per 100,000 males for nonwhites versus 28.5 for whites. North Carolina has led the nation in prostate cancer mortality rate for several years. Health behaviors associated with decreased prostate cancer risk include eating a diet emphasizing fruits and vegetables, regular physical activity and prostate cancer screening.

## Diet, Physical Activity and Cancer Screening Behaviors among African-American Men

Diets high in red meat and/or high-fat dairy products are associated with increased prostate cancer risk, while diets rich in fruits and vegetables are associated with lower risk. Several epidemiological studies also support the hypothesis that diets rich in tomatoes and tomato products are associated with a reduced risk of prostate cancer.<sup>3-8</sup> In 2003, the National Cancer Institute (NCI) launched a campaign to encourage African-American men to eat nine servings of fruits and vegetables a day. Every type of diet-related cancer disproportionately affects African-American men, yet they have the lowest consumption of fruits and vegetables of any group, and current trends suggest that even these levels are declining.9 Other studies have confirmed that black men have higher and more frequent consumption of meat and fast foods than white men<sup>10</sup> and are less likely to be aware of the importance of consuming fruits and vegetables in reducing the risk of certain cancers.9

Physical activity also plays a role in cancer morbidity and mortality. Several studies<sup>11-14</sup> have reported that

inactive men have higher rates of prostate cancer compared to men who are very physically active, and physical activity may reduce men's risk for prostate cancer by 10–30%. Approximately two-thirds of African-American men in one study reported their fitness levels as poor or worse than average compared to fewer than half of the non-African-American men.<sup>15</sup>

There are two major methods for prostate cancer screening, the digital rectal examination (DRE) and the serum prostate-specific antigen test (PSA). The American Cancer Society has recommended that physicians offer PSA testing and the DRE to men aged ≥50 years and at age 45 to African-American men and men with positive family histories of prostate cancer while emphasizing that information about the benefits and limitations of testing should be provided. 16-18 The NCI, however, has not made a recommendation regarding prostate cancer screening.<sup>19</sup> Despite the fact that prostate cancer is being diagnosed at earlier stages for those men who receive the PSA test, evidence is not yet available of any improvement in health outcomes.<sup>20</sup> According to the U.S. Preventive Services Task Force (USPSTF), "PSA screening is associated with important harms, including frequent false-positive results and unnecessary anxiety, biopsies, and potential complications of treatment of some cancers that may never have affected a patient's health". The conclusion of the USP-STF is that current evidence is insufficient to determine whether benefits outweigh harms for a screened population.<sup>21</sup> Despite the controversy over prostate cancer screening, it is imperative that progress be made in reducing the disproportionate burden of prostate cancer morbidity and mortality among African-American men.

Studies have suggested that early detection of prostate cancer in asymptomatic men can narrow the gap in mortality rates.<sup>22</sup> However, African-American men are less likely to have had prior prostate cancer screening and are more likely not to participate in free screening.<sup>23</sup> They are also more likely than whites to have advanced disease at the time of diagnosis.<sup>24,25</sup> Thus, decreased participation in prostate cancer screening by African-American men is a serious problem, given decreased survival rates when the diagnosis of prostate cancer is delayed.<sup>26,27</sup>

It is vital that African-American men who are at high risk for prostate cancer engage in lifestyle changes (improved diet and increased physical activity), increase participation in screening programs for early detection and engage in other recommended cancer prevention activities.

# Social Support

Social support may also play a major role in African-American men's participation in cancer screening.<sup>28</sup> Findings from focus groups conducted by Jernigan et al.<sup>29</sup> showed that men almost exclusively named a

spouse or female family member as their support for initiating and receiving cancer tests, relying on those close females in their network to encourage them to take action. Thus, the primary impetus for men getting an initial cancer test was encouragement from a woman to see a physician, often in response to the presence of symptoms. This suggests that women play an important role in facilitating men's contact with healthcare providers. In addition, Thrasher and colleagues studied social support for colorectal cancer screening among African-American church members and found that, aside from doctors, spouses were cited as the most important sources of support for both cancer screening and preventive activities.<sup>30</sup>

# The Church as a Social Support Setting for Health Promotion Activities

The disparity in African-American versus white cancer-related morbidity and mortality argues for innovative population-based interventions that promote adoption of health behaviors linked to primary and secondary prevention of prostate cancer among African Americans. These interventions must be culturally sensitive, enhance community facilitators and assets, <sup>31</sup> and address the existing barriers to behavior change in communities of color.

The church has traditionally played a vital role in the lives of most African-American adults in the southern United States. Therefore, African-American churches are promising intervention sites for health promotion activities and serve as a powerful channel for health promotion efforts. 32-34 The black church, as a significant community institution owned and led by African Americans, has led the way as an advocate for civil rights, as an enabler to foster community change and as a safety net for members in need. The church is also the center for many religious, cultural and social activities. Many black churches include health of their members and the community in their mission. Pastors and church leaders can serve as highly credible role models and persuaders in encouraging healthy behaviors through sermons, organized activities and personal example.35-41 Working in partnership with churches, health promotion efforts can be promoted and sustained by incorporating the natural assets of the social, organizational and religious aspects of the church into behavior change programs.

The purpose of this investigation is to explore the knowledge and beliefs of African-American men and their spouses about prostate cancer, behavior change to reduce prostate cancer risk and prostate cancer screening as well as barriers to making health promoting lifestyle changes.

## **METHODS**

## **Study Design**

Wellness for African Americans through Churches II (WATCH II) was an NCI-funded pilot research collaboration among the University of North Carolina at Chapel Hill Lineberger Comprehensive Cancer Center, the North Carolina Central University Department of Health Education and the Julius L. Chambers Biomedical/Biotechnology Research Institute. WATCH II expanded on findings from the original WATCH project, 42 which tested the effectiveness of two approaches to improving diet, physical activity and cancer screening behaviors related to primary and secondary prevention of colorectal cancer: a tailored print and video intervention and a lay health advisor intervention. Results from the WATCH project among participants receiving the tailored print and video intervention showed significant (p<0.05) improvements for fruit and vegetable consumption (0.6 servings/day) and recreational physical activity (2.5 MET hours per week), and among those ≥50, a 15-percentage-point increase in fecal occult blood test screening.

The overall project goal of WATCH II was to further refine and replicate findings from the original WATCH project and to examine the possible effectiveness of using tailored print messages, videos and a lay health advisor intervention to address diet, physical activity, and both colorectal and prostate cancer education and screening for African-American churchgoers.

# **Participant Recruitment**

WATCH II staff identified a convenience sample of two African-American churches from North Carolina counties near the location of the universities. Pastors from each church were contacted and asked to participate. Each pastor recruited focus group participants by making an announcement during Sunday church service. WATCH II staff also attended Sunday morning church services over a period of several weeks to provide additional information about the project and the purpose of the focus groups, engage pastors and other church leaders, and engender interest and participation from the congregation. Pastors identified interested men in the congregation who were invited to attend the focus groups. Because of research suggesting that spousal support was important, separate women's groups consisting of, except in the case of one woman, the spouses of men in the men's groups also were conducted in order to identify women's perspectives on beliefs about, barriers to, and motivators for initiating and/or maintaining prostate cancer prevention and screening behaviors among African-American male church members.

# Development of the Focus Group Moderator's Guide

The focus group moderator's guide was a semistructured guide designed to identify beliefs about, barriers to, and motivators for initiating and/or maintaining prostate cancer prevention behaviors among African-American male church members and their spouses. Questions were developed around constructs from the Health Belief Model. 43 This theory informs intrapersonal level interventions by identifying important beliefs, barriers and motivators (benefits) associated with behavioral promotion and maintenance of change. Moderator guide questions focused on knowledge, beliefs and perceptions about prostate cancer and its prevention among African-American men. The protocol for the focus group was approved by the institutional review board at the School of Public Health at the University of North Carolina at Chapel Hill.

The focus group protocol contained eight main topic areas: general health and the meaning of health, attitudes toward cancer and experience with screening, prostate cancer knowledge, African-American risk for developing prostate cancer, prostate cancer prevention, prostate cancer screening tests, and barriers to and facilitators of prostate cancer screening.

## **Data Collection**

Four gender-specific focus groups were conducted at the participating churches in fall 2002 and winter 2003—one men's and one women's group at each church. Each focus group lasted approximately one hour. African-American female WATCH II project staff (a moderator/facilitator and a note-taker) conducted each group. Prior to the sessions, a meal was provided for participants, and informed consent was obtained from each participant. Demographic information was then collected via a brief questionnaire, and focus groups were conducted. Afterward, each participant received an incentive of \$20. All focus group sessions were audiotaped.

# **Data Analysis**

Data analysis employed both notes taken at each focus group session and transcribed audiotapes. The audiotape recordings were transcribed by graduate assistants, and these were merged with the notes taken during the focus group sessions. Once the merged documents were created for each session, three of the study investigators carefully reviewed the text to identify themes that best categorized statements from the focus group sessions. After each investigator independently identified themes, these were consolidated and refined into the distinct themes reported in this paper.

## **RESULTS**

## **Participant Characteristics**

All of the people who participated in the focus groups were men and women from the Raleigh-Durham area of North Carolina. The ages of the participants ranged from 34–68 years old. Fourteen African-American men and 15 African-American women participated in the four WATCH II focus groups. The majority of the participants (91%) in the focus groups identified themselves as members of church congregations. Forty-one percent of the participants had a college degree, and 95.5% of the participants were married (compared with a North Carolina State average for African Americans of 13.1% and 50%, respectively).<sup>44</sup> Only 22% of the men reported having had a prostate cancer screening test.

#### **EMERGENT THEMES**

Three primary themes emerged from the focus group discussions: 1) culturally and gender-influenced beliefs and barriers about cancer prevention and screening; 2) barriers related to the healthcare system; and 3) religious influences, including the importance of spiritual beliefs and church support.

# Culturally and Gender-Influenced Beliefs and Barriers about Cancer Prevention and Screening

African-American men and women in these focus groups demonstrated a reasonably good level of general knowledge and awareness about prostate cancer.

Men and women were asked what came to mind when they heard the term "prostate cancer." Women correctly identified prostate cancer as affecting men, and one man spoke about how the disease disproportionately affects African-American men: ... "it is most common in African-American males."

When asked if they believed that prostate cancer could be prevented, both men and women responded affirmatively; however, men tended to give more indepth responses to this question. Focus group members were able to give examples of a prostate cancer risk factor (age), symptoms (frequent urination and enlarged prostate—not specific for prostate cancer) and strategies that can reduce risk (changing diet, screening).

You mentioned about frequent urination, I never associated that with prostate cancer. I know that diabetes has that symptom if you have high sugar. I know that once you get older, you are at risk for prostate cancer. These are things we don't discuss in the barbershop because we don't know about it.

Participants were asked if they could identify screening tests for prostate cancer, and the responses were generally correct: "chemical in the blood," "PSA,"

"blood test," "digital rectal exam."

Several people spoke about possible causes of prostate cancer, including:

- diet: "I always thought that cancer has to do with food," "Eating too much fat," "Not drinking 8 glasses of water a day;"
- the effect of physical stress on the prostate: "Black men work hard, working in the fields, hard lifting. I think that has a lot to do with it;"
- genetics:

I would think that it's actually something that's always there, that shows up later, like a gene that's recessive, and because of age or because of different things that happen to you may set it off, make it dominant.

 and social and physical environment: "It may not be a genetic thing. It may be a social thing...,"
 "We have a lot of toxic stuff around us ...so it can be a number of things that can cause cancer."

Cultural beliefs, attitudes and behaviors. The discussion of reasons that African-American men bear a much higher burden of prostate cancer than men of other racial/ethnic groups revolved around beliefs, attitudes and behaviors specific to African-American men. Among the race-specific causes predisposing African Americans to increased cancer risk, diet was mentioned—"We as black people, we eat the same things, we do the same things... pig feet, wrinkled bellied steak, you know, pork"—and the fact that African Americans today are not nearly as physically active as their forebears were:

One-hundred years ago, when we were on the plantation, we worked hard and lived long. Now we're like the other folks. I don't see many of us walking. A lot of what's happened to us is because of what we don't do.

Men's perspective—why men don't get tested. Men in the group expressed the belief that many African-American men are not screened for prostate cancer for a number of reasons: masculine identity (machismo, toughness, invulnerability), and fear of invasion of their privacy and bodies. One man went on to elaborate on the reluctance of many African-American men to be tested and encouraged others to be screened:

I think that the reason for that is we are reluctant to get tested to be screened for that. We don't take time for the prostate to be checked. I had it (prostate screening) back in October or November but it did not bother me at all. But it was just the thought that I'm going to have to do this. You know what I say—I encourage that if you have not had it you just grit your teeth and go on and get it done.

The issues of masculinity, embarrassment and privacy were discussed by several men:

I think about black men and the fact that we'd probably have a lot of them still with us if they were just more willing to seek care and if they weren't so private about that.

I think it's an image and it has to do with our expectations of them and society's expectations and a need to be strong and a need to believe that they're okay because otherwise who's going to take care of them and they have that image. And sometimes, my feeling is that they choose not to know rather than to have to do anything about it or face it.

When I hear the word "prostate," I think about my dad. He was 76 years old when he died of prostate cancer—something that could've been avoided but because of his pride and his manhood he chose not to deal with it, and the lack of knowledge cost him his life.

Also closely related to this concept of masculinity is the fear of an assault on their manhood by undergoing DREs—or even worse, the fear of impotence if prostate cancer is diagnosed. As one man explained:

One of the things they may think of is the inability to perform sexually, and for a male that's devastating and for a female too.

Women's perspective—placing needs of family first. Women gave responses regarding the concerns African-American men have about prostate cancer screening, citing numerous examples of how men tended to place the needs of their families before themselves, i.e., to pay the bills or even to make sure that the children's medical care was provided, sometimes to the neglect of their own preventive healthcare. The women in this group discussed their role and responsibility in urging their husbands, fathers, sons, brothers and uncles to take better care of themselves:

Many black men do not go for regular check-ups. They do not check on themselves. They may be in pain, but they are like, oh it will go away. We as blacks, period ... we let things get worse before we go see about it.

I think that the experience (having prostate can-

cer) will be overwhelming because the first thing they will probably think is possibly, I'm going to die and leave my family and who will take care of my wife, my children and even their parents? I think in this society most men that I know feel like they have so much responsibility that they can't afford to be sick or hindered from working, so they would rather not know that they have cancer.

If there is enough money to take the kids to the doctor they will do that and put themselves on the back burner, like we do a lot and before they know it, there is something wrong with them. It could be prostate cancer.

As a black man, if it comes between a choice to pay for a doctor visit or get something for his wife, he will take care of his wife and put himself on hold.

# Barriers Related to the HealthCare System

**Mistrust of healthcare providers.** Participants in our study confirmed that they had reservations about interactions with the healthcare system:

I think if we were real honest, and I think the data will show, we don't get the same kind of care that white patients get.

We're afraid they won't treat us right if we ask them some things.

They don't trust the doctor. A lot of folks don't trust the doctor.

Quality of patient—doctor interaction and communication. Participants in this study often reported that when they went to visit the doctor, they were influenced to undergo prostate cancer screening if the physician recommended the procedure. "I know in my case," one man reported, "when the doctor stated that I had to get the test, I asked him was he sure or could we put it off until next year." This man was convinced by his physician of the need to take the PSA test, and followed his recommendations.

**Lack of insurance.** Participants in this research also stressed the importance of economic factors on decisions about whether or not to be tested for prostate cancer.

I think another reason (why men don't get tested for prostate cancer) is ... health insurance. I think that more black males don't have access to health insurance than white men. We cannot afford getting the test.

Fear of screening procedures. "They could have a

van outside giving free tests, and I still wouldn't want it. I think that it is the fact of going through that physical test and it feel like it invades my privacy."

We have to be real sick to go to the doctor. Men like to be young and physical. They really don't like going through the extreme of going to the test. I think that black men fear the going to the doctor.

# Religious Influences, Including the Importance of Spiritual Beliefs and Church Support

Strong faith encourages adherence to health promotion practices. Focus group participants frequently mentioned how important their faith was in helping to make decisions about health and how it influenced the care they took of their bodies. One member noted that, "God says a lot about how he wants your body to be healthy just like he wants your soul to be happy in him." This attitude reflects a deep conviction that the body is God's temple and should be cared for properly. This attitude encourages churchgoers to engage in proper nutritional practices, exercise, avoid habit-forming drugs such as tobacco and alcohol, and generally monitor their health status.

Participants discussed the negative effects of stress on their health and described how their relationships with God helped them deal with stress in a positive way. One man felt that stress in African-American men could contribute to problems with the prostate.

You know at work, sometimes, I'm under a lot of stress ... and when I go to the bathroom, when I urinate, I watch my urine stream. I can tell when I'm in stressful situations because it decreases my urine stream. And that means that something is affecting my prostate ...

"Stress ...," noted another man, "is a big thing that we need to address ... not just physically but spiritually." He claimed that "we can study, you can research it, you can do everything" but concluded that it was his relationship with God that allowed him to persevere in spite of difficult and stressful situations.

Religious beliefs can be both motivating and demotivating factors for health promotion practices. Fear of cancer and an attitude of fatalism regarding it were noted in the focus groups. From men, the sentiments most often expressed were "fear," "pain and suffering," "bad" and "death." Women also stated their reactions in terms of "disease" and "death."

I think about my family members who have suffered. Most of the people I know who have had it have died. Other participants felt that in some cases, there was no point in trying to do anything about your situation, because when you have ended "your stay on this earth ... then you got to go.

Fatalistic attitudes toward disease are more common among African Americans; however, not all the men agreed that they should be passive bystanders, but rather thought they should encourage each other to actively fight the disease. There were also expressions of faith in God and the hope for a cure with God's help. One man observed that:

There are different kinds of cancer and some of them you can survive. But if you have faith and fight, and the Lord wills, you will live.

#### Another man stated:

[Cancer is a] ...momentary setback. Cancer is a challenge, and when you don't accept it, you live a lot longer. Don't make a big issue out of it. It's a mind thing to me. It's not a kiss of death.

A few focus group members also thought that some people might have other religious attitudes that might discourage active participation in health promotion and cancer prevention activities. For these people, "It [prostate cancer] might be a punishment." That is, a person might believe that a current health condition was the result of sinful behavior and that he or she deserved whatever negative consequences they experienced.

Role of the church. Participants overwhelmingly felt that the pastor was critical to the success of any health promotion and cancer prevention activities in the church. A female focus group member strongly endorsed the high visibility of the pastor in all activities, noting that "having the pastor's picture" included in promotional materials was "a bonus." Other members felt that having the pastor's solid support suggested that the church was "united" around these activities, "because sometimes the pastor [may] feel that they are too busy to do this [health promotion activities]." If the pastor expends his or her time and effort, perhaps through sermons or approval of educational materials in the church bulletin, it suggests that the activities are important, and the congregation is more likely to become personally engaged and take steps to comply with those practices.

Others noted the importance, not only of the pastor but of others in the Christian community. They seemed to regret the stance that the church had taken on some issues, often leading to inaction and/or inattention to factors that affect the health of African Americans. One man observed that:

We have to agree ... that the black church has been a little neglect(ful) when it comes to dealing with anything other than issues that deals with the spiritual man. Because if you remember right now in this area, there is only two black churches that work with AIDS patients.

Another participant thought that "a lot of churches did not deal with the [real] issues" that affect black people and that, often, health promotion efforts have to go through other channels (for example, barbershops), to get important health messages to the community. One member thought that Christians often missed opportunities to minister to the needs of others who "are not going to come through that door right there." He urged Christians to be role models because "the only thing that a lot of people are going to see is one of us."

#### DISCUSSION

The purpose of this study was to use focus group data to assess perceptions of African-American male churchgoers and their spouses on prostate cancer, prostate cancer prevention and prostate cancer screening.

African-American men and women in these focus groups demonstrated a reasonably good level of general knowledge and awareness about prostate cancer and screening tests, although many were unclear about what age to begin testing and how frequently they should have them. This finding differs from other reports in the literature reporting low levels of knowledge and misinformation about prostate cancer, its risk factors, and the importance of screening and early detection among African-American men. 45, 46

Despite the fact that most men held a negative perception of the DRE, participants understood the importance of cancer screening in general, and prostate cancer screening in particular, which supports the observation that there is concern about the impact of cancer on the African-American community.

Overall, African Americans have the highest incidence and mortality rates for cancer.<sup>47</sup> Racial and ethnic disparities in health exist within the broader context of social and economic inequality. The focus group participants were aware of the disproportionately high risk African-American men have for developing prostate cancer; however, their views varied about the reasons for the disparity between white and African-American males. The unique perspective of African Americans in the United States has been influenced by the history of slavery, segregation, discrimination and persistent racism in American society. This "race consciousness" 48 is seen in the participants' views about the sources for the disparity in rates of prostate cancer between white and African-American males. Many participants felt that the African-American diet and lack of physical activity played a role in higher rates of cancer.

Shelton et al. <sup>27</sup> reviewed articles that identified barriers to participation in prostate cancer screening among African-American men, which included: cost of the

tests, lack of cancer knowledge/awareness, perceptions of low susceptibility to cancer, lack of access to health-care, racism, low socioeconomic status, fatalistic attitudes and embarrassment/discomfort with the examination. Our focus group findings were consistent with many of these findings, including expressions of embarrassment and shame associated with DRE testing. A recent focus group study of African-American men aged ≥55 years, conducted by Ford et al., reported that a diagnosis of prostate cancer itself was related to embarrassment and shame.<sup>28</sup>

Even though black men are more likely than white men to be diagnosed with advanced prostate cancer, they are less likely to undergo screening for prostate cancer. The second factor is inextricably linked to the first. The Institute of Medicine's report in 2002 stated that "[al]though myriad sources contribute to [health] disparities, some evidence suggests that bias, prejudice, and stereotyping on the part of healthcare providers may contribute to differences in care." The IOM report and numerous other studies have found that blacks often lack confidence in the healthcare system, and therefore tend to avoid or underutilize the services provided. 50-52

Negative stereotypes of healthcare providers, especially physicians, may reflect an individual's awareness of historical injustices to minority and low-income individuals in the healthcare system or simply their own personal experiences with physicians and other healthcare personnel. African-American patients who hold strong negative stereotypes of physicians and judge physicians negatively may be reluctant to visit a physician for relatively minor medical complaints, choosing instead to delay healthcare until their problems become more severe or impede functioning. The consequence of delayed help-seeking, particularly when patients may already feel stressed about their health status or condition, is often diagnosis of the problem in its advanced stages.

Katz and colleagues <sup>54</sup> found that African-American church members reported higher rates of colorectal cancer screening when they perceived that they had positive communication with their healthcare provider and that these rates were further improved with adequate knowledge about colorectal cancer screening. Other studies have confirmed the important, determining relationship between the strength and quality of the patient–doctor relationship and cancer screening. <sup>51,55</sup>

Another reason for not being screened cited in the focus groups in this study was the lack of physician recommendation for cancer screening. One participant said that "if a doctor does not recommend a screening exam a patient may not believe that the exam is important." This finding is consistent with research by Woods et al., who reported that a significant predictor of both PSA and DRE among African-American men was the physician's direct prostate cancer communication message. <sup>56</sup> A recent cross-sectional analysis of data from the 2000

National Health Interview Survey revealed that 74% of men receiving PSA screening reported that the screening was initiated by their physician.<sup>57</sup> Tannor and Ross, in a study on African-American men, reported that even though a high percentage of the men had discussed PSA testing with their doctor, there was a large number of men who had never received a PSA test and knew nothing about them.<sup>58</sup> In addition, Barber et al.<sup>59</sup> reported that although prostate cancer is a major contributor to morbidity and mortality in the male population, public awareness of the cancer has been reported as minimal.

The church plays a critical role in the lives of most African-American adults in the southern United States, and it has the unique ability to meet various spiritual. economic, social and cultural needs of the black community. The strong religious faith of African Americans and their active participation in church activities are often cited as having a positive effect on their physical<sup>60</sup> and mental health, 61 healthcare practices, 62 life satisfaction.63 cancer survival rates 64 and health-seeking behaviors.65 Because of this, African-American churches can play an important role in reaching individuals at high risk for chronic diseases. 42,66 Participants also responded positively to biblical verse-related health promotion messages suggesting that successful interventions should include educational materials that are designed specifically for church-based audiences.

Fear of cancer and an attitude of fatalism among African Americans have been reported in the literature. The belief that there is little that can be done to prevent or treat the disease, a belief that is more common among African Americans, makes the adoption of cancer prevention and screening behaviors potentially less likely. Some of the men and women queried about their reaction to the word "cancer" in focus groups reacted the same way, with expressions of fear, fatalism, hopelessness, helplessness and the inevitability of succumbing to the disease.

Mitchell et al. reported that a small group of women in their study of breast cancer in eastern North Carolina believed that "medical treatment was unnecessary because only God could cure breast cancer." This attitude, labeled "religious intervention in place of treatment," was significantly more common in African-American women who were less educated and older, and correlated strongly with the intention to delay presentation of a self-discovered breast lump. Members of our focus group were more highly educated and did not express these beliefs.

Both men and women stressed the idea that black men are known for not going to the doctor. These sentiments were similar to focus group responses from younger African-American men in Chicago reported by Ravenell et. al.<sup>73</sup> Some men pointed out the importance of the women in their lives for helping them take care of themselves and encouraging them to see a doctor.

The WATCH II intervention tested the effectiveness of

a tailored education (newsletters and videos) and a lay health advisor intervention to promote behavior change to reduce risk of colorectal and prostate cancers for African-American men and women. The behaviors targeted for change were diet (increasing fruit and vegetable and decreasing fat intake), increasing physical activity, and promoting regular prostate and colorectal cancer screenings. A primary focus of WATCH II intervention messages and lay health advisor educational training was to get participants to talk to their doctors about being screened for colorectal and prostate cancers.

The findings from these focus groups assisted us in developing tailored messages to address salient beliefs about and barriers to prostate cancer prevention behaviors. Women were included in the prostate cancer part of the WATCH II intervention because of the important role they play in encouraging the men in their lives to adopt health promoting activities. Findings from these focus groups underscored the importance of faith in God and love for family as central/core values among these churchgoers that represent an important means of reaching men at risk with cancer risk-reduction messages.

A limitation of this qualitative study is that the findings may not be generalizable to other African-American and non-African-American populations, other geographic areas and to people not attending churches. Volunteer participants in our focus groups had a higher educational attainment and were more likely to be married than other African Americans in North Carolina and in the United States as a whole.<sup>44</sup> Another concern is the possible inhibitions men could have had in discussing such personal information in sessions moderated by women.

Use of focus groups and other qualitative methods, however, can help public health professionals better understand attitudes and beliefs of African-American men associated with an increased risk of prostate cancer. The information gleaned from these focus groups can be used to better inform and tailor prostate cancer interventions, especially in making those interventions more culturally relevant to African-American churchgoers. It is also important for healthcare providers to become knowledgeable about the importance of prostate cancer screening in high-risk populations and to make sure their patients are aware of their options concerning screening and engage in informed decision-making.

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#### **REFERENCES**

- ACS. Cancer facts and figures. Atlanta, GA: American Cancer Society; 2005.
- 2. North Carolina Central Cancer Registry. Available at: www.schs.state. nc.us/SCHS/data/cancer.cfm. Accessed 08/19/05.

- 3. Giovannucci E. Tomatoes, tomato-based products, lycopene, and cancer: Review of the epidemiologic literature. *J Natl Cancer Inst.* 1999; 91(4):317-331.
- 4. Cohen JH, Kristal AR, Stanford JL. Fruit and vegetable intakes and prostate cancer risk. J Natl Cancer Inst. 2000;92:61-68.
- 5. Kristal AR, Cohen JH. Invited commentary: tomatoes, lycopene, and prostate cancer. How strong is the evidence? Am J Epidemiol. 2000;151: 124-130.
- Giovannucci E, Rimm EB, Liu Y, et al. A prospective study of tomato products, lycopene, and prostate cancer risk. J Natl Cancer Inst. 2002;94(5): 391-398.
- 7. Miller EC, Giovannucci E, Erdman JW Jr, et al. Tomato products, lycopene, and prostate cancer risk. *Urol Clin North Am.* 2002;29:83-93.
- Campbell JK, Canene-Adams K, Lindshield BL, et al. Tomato Phytochemicals and Prostate Cancer Risk. J Nutr. 2004;134:3486S-3492S.
- 9. National Cancer Institute, Eat 5 to 9 a Day for Better Health. www.5aday. gov/aahealth/index.html. Accessed 06/03/05.
- 10. Pereira MA, Kartashov AI, Ebbeling CB, et al. Fast-food habits, weight gain, and insulin resistance (the CARDIA study): 15-year prospective analysis. *Lancet*. 2005;365(9453):36-42.
- 11. Clarke G, Whittemore AS. Prostate cancer risk in relation to anthropometry and physical activity: National Health and Nutrition Examination Survey I epidemiological follow-up study. Cancer Epidemiol Biomarkers Prev. 2000;9:875-881.
- 12. Friedenreich CM, Orenstein MR. Physical activity and cancer prevention: etiologic evidence and biological mechanisms. *J Nutr.* 2002;132: 3456S-3464S.
- 13. Norman A, Moradi T, Gridley G, et al. Occupational physical activity and risk for prostate cancer in a nationwide cohort study in Sweden. Br J Cancer. 2002;86:70-75.
- 14. The Scientific Program Committee. Physical activity across the cancer continuum: Report of a workshop. Cancer. 2002;95:1134-1143.
- 15. Young DR, Aickin M, Brantley P, et al. Physical activity, cardiorespiratory fitness, and their relationship to cardiovascular risk factors in African Americans and non-African Americans with above-optimal blood pressure. J Community Health. 2005;30(2):107-124.
- 16. The American Cancer Society website, www.cancer.org. Accessed 03/03/06.
- 17. Smith RA, von Eschenbach AC, Wender R, et al. American Cancer Society guidelines for the early-detection guidelines for prostate, colorectal, and endometrial cancers. CA Cancer J Clin. 2001;51:38-75.
- 18. Schroder FH, Erasmus MC. Early detection of prostate cancer. What do we tell our patients? Can J Urol. 2006;13(2 Supp 1):37-42.
- 19. The National Cancer Institute website. www.cancer.gov/. Accessed 03/05/06.
- 20. Potosky A, Miller B, Albertsen P, et al. The role of increasing detection in the rising incidence of prostate cancer. JAMA. 1995;237:548-552.
- 21. U.S. Preventive Services Task Force. Screening for prostate cancer: recommendation and rationale. Ann Intern Med. 2002;137:915-916.
- 22. Mettlin CJ, Murphy GP, Rosenthal DS, et al. The National Cancer Database report on prostate carcinoma after the peak in incidence rates in the United States. The American College of Surgeons Commission on Cancer and the American Cancer Society. Cancer. 1998;83(8):1679-1684.
- 23. Weinrich SP, Boyd MD, Bradford D, et al. Recruitment of African Americans into prostate cancer screening. Cancer Pract. 1998;6(1):23-30.
- 24. Thompson I, Tangen C, Tolson C, et al. Association of African American ethnic background with survival in men with metastatic prostate cancer. J Natl Cancer Inst. 2001;93(3):219-225.
- 25. Anai S, Pendleton J, Wludyka P, et al. Prostate cancer screening and detection in inner-city and underserved men. *J Natl Med Assoc.* 2006; 98(4):515-519.
- 26. Ndubuisi SC, Kofie VY, Andoh JY, et al. Black-white differences in the stage at presentation of prostate cancer in the District of Columbia. *Urology*. 1995;46(1): 71-77.
- 27. Shelton P, Weinrich S, Reynolds WA Jr. Barriers to prostate cancer screening in African American men. J Natl Black Nurses Assoc. 1999;10(2): 14-28.
- 28. Ford ME, Vernon SW, Havstad SL, et al. Factors influencing behavioral

- intention regarding prostate cancer screening among older African-American men. J Natl Med Assoc. 2006;98(4):505-514.
- 29. Jernigan JC, Trauth JM, Neal-Ferguson D, et al. Factors that influence cancer screening in older African American men and women: focus group findings. Fam Community Health. 2001;24(3):27-33.
- 30. Thrasher JF, Campbell MK, Oates V. Behavior-specific social support for healthy behaviors among African American church members: applying optimal matching theory. *Health Educ Behav.* 2004;31(2):193-205.
- 31. Ammerman AS, Washington C, Jackson B, et al. The PRAISE! Project: A Church-based nutrition intervention designed for cultural appropriateness, sustainability, and diffusion. *Health Promot Pract*. 2002;3(2):286-301.
- 32. Lincoln CE, Mamiya LH. The black church in the African American experience. Durham, NC: Duke University Press; 1990.
- 33. Brown DR, Gary LE. Religious involvement and health status among African-American males. *J Natl Med Assoc.* 1994;86:825-831.
- 34. Caldwell C, Greene A, Billingsley A. The Black church as a family support system: Instrumental and expressive functions. *Natl J Sociol*. 1992;6:21-40.
- 35. Eng E, Hatch J. Networking between agencies and Black churches: the lay advisor model. *Prevention in Human Services*. 1991;10:123-147.
- 36. McAdoo H, Crawford V. The Black church and family support programs. *Prevention in Human Services*. 1991;9:193-203.
- 37. McRae M, Carey P, Anderson-Scott R. Black churches as therapeutic systems: a group process perspective. *Health Educa Behav*. 1998;25:778-789.
- 38. Moore T. The African-American church: a source of empowerment, mutual help and social change. *Prevention in Human Services*. 1991;10: 147-167.
- 39. Saunders E. New insights and interventions: churches uniting to reach the African American community with health information. *J Health Care Poor Underserved*. 1997;8: 373-376.
- 40. Reid LV, Hatch J, Parrish T. The role of a historically black university and the black church in community-based health initiatives: the project DIRECT experience. J Public Health Manag Pract. 2003;(Suppl):S70-S73.
- 41. Markens S, Fox SA, Taub B, et al. Role of black churches in health promotion programs: lessons from the Los Angeles Mammography Promotion in Churches Program. Am J Public Health. 2002;92:805-810.
- 42. Campbell MK, James A, Hudson MA, et al. Improving multiple behaviors for colorectal cancer prevention among African American church members. *Health Psychol.* 2004;23(5):492-502.
- 43. Becker MH. The health belief model and personal health behavior. *Health Educ Monogr.* 1974;2:324–473.
- 44. United States Census Bureau website. www.census.gov/census2000/states/nc.html. Accessed 01/13/06.
- 45. Richardson JT, Webster JD, Fields NJ. Uncovering myths and transforming realities among low-SES African American men: Implications for reducing prostate cancer disparities. J Natl Med Assoc. 2004;96(10):1295-1302.
- 46. Magnus M. Prostate cancer knowledge among multi-ethnic black men. J Natl Med Assoc. 2004;96:650–656.
- 47. Jemal A, Murray T, Ward E, et al. Cancer statistics 2005. CA Cancer J Clin. 2005;55:10-30.
- 48. Watts R. Race consciousness and the health of African Americans. http://nursingworld.org/ ojin/topic20/tpc20\_3.htm. Accessed 06/07/05. *J Issues Nurs*. 2003;8(1):Manuscript 3.
- 49. Gilligan T, Wang PS, Levin R, et al. Racial Differences in Screening for Prostate Cancer in the Elderly. *Arch Intern Med.* 2004;164(17):1858-1864.
- 50. Dancy J, Ralston PA. Health promotion and back elders: subgroups of greatest need. Res Aging. 2002;24(2):21-25.
- 51. Saha S, Arbelaez JJ, Cooper LA. Patient-Physician relationships and racial disparities in the quality of health care. *Am J Public Health*. 2003; 93(10):1713-1719.
- 52. Dunlop DD, Manheim LM, Song J, et al. Gender and ethnic/racial disparities in health care utilization among older adults. *J Gerontol B Psychol Sci Soc Sci.* 2002;57:S221-S233.
- 53. Bogart LM, Bird ST, Walt LC, et al. Association of stereotypes about physicians to health care satisfaction, help-seeking behavior, and adherence to treatment. Soc Sci Med. 2004;58:1049-1058.
- 54. Katz ML, James AS, Pignone MP, et al. Colorectal cancer screening among African-American church members: a qualitative and quantitative

study of patient-provider communication. BMC Public Health. 2004;4(1):62. www.biomedcentral.com/1471-2458/4/62. Accessed 07/08/05.

- 55. Fisher DA, Dougherty K, Martin C, et al. Race and Colorectal Cancer Screening: a Population-based Study in North Carolina. N C Med J. 2004;65(1):12-15.
- 56. Woods VD, Montgomery SB, Herring RP, et al. Social ecological predictors of prostate-specific antigen blood test and digital rectal examination in black American men. J Natl Med Assoc. 2006;98(4):492-504.
- 57. Han PK, Coates RJ, Uhler RJ, et al. Decision making in prostate-specific antigen screening national health interview survey, 2000. Epub 2006 Mar 23. Am J Prev Med. 2006;30(5):394-404.
- 58. Tannor BB, Ross L. Physician-patient discussions about prostate-specific antigen test use among African-American men. *J Natl Med Assoc.* 2006;98(4):532-538.
- 59. Barber KR, Shaw R, Folts M, et al. Differences between African American and Caucasian men participating in a community-based prostate cancer screening program. *J Commun Health*. 1998;23(6):441-451.
- 60. Musick MA, House JS, Williams DR. Attendance at Religious Services and Mortality in a national sample. J Health Soc Behav. 2004;45(2):198-213.
- 61. Ellison CG. Race, religious involvement and depressive symptomatology in a southeastern U.S. community. Soc Sci Med. 1995;40(11):1561-1572.
- 62. Felix A, Levine D, Burstin HR. African American church participation and health care practices. *J Gen Intern Med*. 2003;18(11):908-913.
- 63. Levin JS, Chatters LM, Taylor RJ. Religious effects on health status and life satisfaction among black Americans. J Gerontol B Psychol Sci Soc Sci. 1995;50(3):S154-S163.
- 64. Van Ness PH, Kasl SV, Jones BA. Religion, race, and breast cancer survival. Int J Psychiatry Med. 2003;33(4):357-375.
- 65. Dessio W, Wade C, Chao M. et al. Religion, spirituality, and healthcare choices of American-American women: results of a national survey. *Ethn Dis.* 2004;14(2):189-197.
- 66. Erwin DO. Cancer education takes on a spiritual focus for the African American faith community. *J Cancer Educ.* 2002;17(1):46-49.
- 67. Powe BD. Cancer fatalism among African Americans: a review of the literature. Nurs Outlook. 1996;44(1):18-21.
- 68. Conrad ME, Brown P, Conrad MG. Fatalism and breast cancer in black women. *Ann Intern Med.* 1996;125(11):941-942.
- 69. Phillips JM, Cohen MZ, Moses G. Breast cancer screening and African American women: fear, fatalism, and silence. Oncol Nurs Forum. 1999; 26(3):561-571.
- 70. Shankar S, Selvin E, Alberg AJ. Perceptions of cancer in an African American community: a focus group report. Ethn Dis. 2002;12(2):276-283.
- 71. Wolff M, Bates T, Beck B, et al. Cancer prevention in underserved African American communities: barriers and effective strategies—a review of the literature. WMJ. 2003;102(5):36-40.
- 72. Mitchell J, Lannin DR, Mathews HF, et al. Religious beliefs and breast cancer screening. J Womens Health (Larchmont). 2002;1(10):907-915.
- 73. Ravenell JE, Johnson WE, Whitaker EE. African-American Men's Perceptions of Health: a Focus Group Study. J Natl Med Assoc. 2006;98(4):544-550. ■

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# CHAIR, OBSTETRICS AND GYNECOLOGY





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The Department of Obstetrics and Gynecology has an outstanding and diverse group of faculty and staff, in Madison and Milwaukee, providing a broad spectrum of specialized medical and surgical services in Gynecology, Gynecologic Oncology, Maternal-Fetal Medicine, Reproductive Endocrinology and Infertility, and General Obstetrics.

The Department has an excellent residency program which combines many of the best features of an academic training program with the patient volumes and diversity of a community based program. Strong programs in basic, translational, and clinical research have grown significantly under the leadership of the current chair and research is well supported by federal and private funding. Obstetrics and Gynecology is a key academic and clinical department of the UW School of Medicine and Public Health, integral to many of the School's strategic priority areas, including women's health, vascular biology, stem cell research, and regenerative medicine. Close connections also exist between the Department and major programs such as Pediatrics and Neonatology, the UW Comprehensive Cancer Center, the UW Cardiovascular Research Center, the Wisconsin Primate Research Center, and the Center for Women's Health & Women's Health Research.

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